

ABSTRACT

An injection mold for manufacturing two-component elongated members, particularly toothbrushes, includes first and second mold cavity members which are mounted for relative movement toward and away from one another to open and close the mold, respectively. These cavity members are designed to have at least a portion of each of them extend through an open central frame which carries a rotatable central mold plate in it. The central mold plate is configured to engage parts of the first and second mold cavity members, which do not directly engage one another through the opening in the frame. In the operation of the mold, a pre-form is formed on one side, between the first and second mold cavity members extending through the frame, and between one of those mold cavity members and the rotatable mold plate. When the mold then is opened, the rotatable mold plate in the central frame member is rotated 180° to place the pre-form on the opposite side of the mold. The mold then is closed, and the second component is injected in such opposite sides of the mold. After a new injection cycle has been completed, the pre-form is simultaneously formed on the first side of the mold and the finished product is formed on the other. The mold again is opened. The central frame moves one-half the distance between the first and second mold cavity members; and the rotatable mold plate is rotated 180° in each cycle. The finished product is ejected, so that a new pre-form can be molded, as described above.

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